



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,615	09/28/2006	Masahiko Hayashi	4918-0111PUS1	4993
2292 7590 03/15/2012 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER HEITBRINK, JILL LYNNE				
ART UNIT		PAPER NUMBER		
1743				
NOTIFICATION DATE		DELIVERY MODE		
03/15/2012		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary**Application No.**

10/594,615

Applicant(s)

HAYASHI ET AL.

Examiner

JILL HEITBRINK

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-14 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-3 and 6-12 is/are rejected.
- 8) ☒ Claim(s) 4,5,13 and 14 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/c3)
Paper No(s)/Mail Date 9/28/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6-11 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nishigaki US 2005/0189665.

3. Nishigaki discloses a mold for injection molding a light guide plate (light transmitting plate) including a fixed mold, a moving mold and a cavity portion [0065]. A plurality of film gates (28, 52) are formed in portion corresponding to the side portion of the light guide plate [0088]. Fig. 5(c2) shows a room for balancing flow comprising an ear-shaped portion 52 to which the melted resin material for molding is supplied is disposed between each gate and a sprue. The dimensions of the room enlarge from the sprue to the cavity forming the film gate as shown in Fig. 5(c2).

4. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. JP 2003-329843 taken together with Ishikawa et al. JP2001-96583.

7. Oshima discloses a mold for injection molding a light guide plate which would have obviously including a fixed mold, a moving mold and a cavity portion since these are conventional and necessary in the art of injection molding for the injection molding of light guide plate products. A plurality of gates (21) are formed in portion corresponding to the side portion of the light guide plate. Figs. 3 and 5 show a room which would have balanced the flow while forming an ear-shaped portion (20) to which the melted resin material for molding is supplied is disposed between each gate and a sprue. Ishikawa teaches the injection molding of light guide plate using a pin gate in Fig. 6 or a film gate Fig. 1. The shape of the gate being a pin gate or a film gate would have been obvious to a person of ordinary skill in the art as shown by Ishikawa so as to provide known filling and a small gate for cutting.

8.

9. Claims 3 or 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishigaki US 2005/0189665 or Oshima et al. JP 2003-329843 taken together with

Ishikawa et al. JP2001-96583 as applied to claims 2 and 8 above, and further taken together with Konishi et al. US 6,835,440 in view of Maus et al. US 4,965,028.

10. Konishi (col. 15, line 62-col. 16, line 44) teaches the injection molding of a light guide plate using a flat gate or film gate which is sized so as to provide the desired fluid characteristics in the cavity. The shape of the gate increasing the temperature of the material by shearing would have been inherent or obvious in Konishi since the shape of the gate causes shearing of the material flowing through the gate. Maus (col. 9, line 49-col. 11, line 3) teaches the shearing of the material at the gate for an instantaneous melt heating depending on the rate of flow of the material. The decreasing of the gate area in Nishigaki or Oshima would have been obvious to a person of ordinary skill in the art in view of Konishi since this would increase the fluid characteristics of the material in the mold such as preventing flow marks and whickers and easier gate cutting.

Allowable Subject Matter

11. Claims 4, 5, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The specific relationship equation of the film gates or pin gates is not taught by the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JILL HEITBRINK whose telephone number is (571)272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on (571) 272-1130. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill L. Heitbrink/
Primary Examiner, Art Unit 1743

Jill L. Heitbrink
Primary Examiner
Art Unit 1743

jlh